Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 FAX (804) 527-5106
www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director
(804) 698-4000

James J. Golden
Regional Director

September 24, 2019

Mr. Gil Santiago
Plant Manager
DuPont Specialty Products USA LLC
Spruance Plant
P.O. Box 27001
Richmond, VA 23261

Location: Chesterfield County
Registration No.: 50397

Dear Mr. Santiago:

Attached is a minor modification to the Title V permit to operate your facility pursuant to 9VAC5 Chapter 80 Article 1 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning September 24, 2019.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on July 29, 2019.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all conditions carefully.

This permit approval to operate shall not relieve DuPont of the responsibility to comply with all other local, state, and federal permit regulations.

To review any federal rules referenced in the above paragraph or in the attached permit, the US Government Publishing Office maintains the text of these rules at www.ecfr.gov, Title 40, Part 70.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please contact the Piedmont Regional Office at (804) 527-5020.

Sincerely,

Kyle Ivar Winter, P.E.
Deputy Regional Director

KIW/CLM/50397-58

Attachment: Permit

cc: Director, OAPP (electronic file submission)
Manager, Data Analysis (electronic file submission)

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Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9VAC 5-80-50 through 9VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee/Facility Name:	DuPont Specialty Products LLC - Spruance Plant
Facility Location:	5401 Jefferson Davis Highway Chesterfield County, Virginia
Registration Number:	50397
Permit Number:	PRO50397

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Conditions 1 through 158)

December 15, 2017
Effective Date

September 24, 2019
Minor Amendment Date

December 14, 2022
Expiration Date

Kyle Ivar Winter, P.E., Deputy Regional Director

24SEP19

Signature Date

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Facility Information

Permittee
DuPont Specialty Products USA LLC
5401 Jefferson Davis Highway
Richmond, Virginia 23234

Responsible Official
Gil Santiago
Plant Manager

Facility
DuPont Specialty Products USA LLC – Spruance Plant
5401 Jefferson Davis Highway
Richmond, Virginia 23234

Contact Person
Phillip Lockard
Sr. Environmental Consultant
804-383-2286

County-Plant Identification Number: 041-00001

Facility Description: NAICS Code 325222 – Non-cellulosic Organic Fiber Manufacturing

The facility manufactures synthetic resins, fibers and sheet products, polyamide resins and spun bonded/non-woven fabric through a variety of processes.

NAICS Code – 327420 Gypsum Product Manufacturing. The Gypsum Plant (GYE01) produces gypsum from the reaction of calcium carbonate and weak sulfuric acid.

The facility is a PSD and Title V major source of volatile organic compounds (VOC) and a Title V major source of hazardous air pollutants (HAPs). This source is located in an attainment area for all pollutants, and is a major NSR source.

(Units of size/rated capacity in *italic* font are designated as Confidential Business Information. The relationship between these surrogate parameters and the confidential information has been provided to DEQ in a confidential "key" document.)

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NOMEX® Process Area							
NOE01	NOS02	Polymerization and Deaeration Process Vessels	39.469 *NOMEX® Polymerization Units/hr*	DuPont designed solvent recovery system including scrubber, extraction and distillation. This system is in operation over the entire NOMEX® process area. (Solvent Recovery)	NOC01[a]	VOC/HAP	February 25, 2011
NOE02	NOS01	Dissolver	2200 Batches/yr	Industrial Sheet & Mechanical Inc. high velocity spray scrubber (NOMEX® DMAc Scrubber)	NOC03	VOC	February 25, 2011
NOE3-10	NOS01	Eight (8) Misc. Process Tanks	< 4,217 gal each	N/A	N/A	N/A	February 25, 2011
NOE11	NOS05	RP larger room	N/A	N/A	N/A	N/A	February 25, 2011
NOE12-13	NOS06	Two (2) Basement filter presses	2000 lbs/hr polymer each	N/A	N/A	N/A	February 25, 2011
NOE14	NOS07	Waste Dryer	1250 lbs/hr fiber	N/A	N/A	N/A	February 25, 2011
NOE15-18	NOS01	Four (4) Spinning Machines	2.93 tons/hr fiber	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE19-23	NOS01	Five (5) Wash/draw Line	1.35 tons/hr fiber each	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE24	NOS08	Crimpers	6.75 tons/hr fiber	N/A	N/A	N/A	February 25, 2011
NOE25	N/A	Finish Application	6.75 tons/hr fiber	N/A	N/A	N/A	February 25, 2011
NOE26	N/A	Process Tanks	6.75 tons/hr fiber	N/A	N/A	N/A	February 25, 2011
NOE27-34	NOS01	Eight (8) Fibridation Machines	2,350 lbs/hr polymer total	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE107-108	NOS01	Two (2) Fibridation Machines	294 lbs/hr each	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE35	NOS01	3DP ("Belt") Press	3,000 lbs/hr polymer total	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE36-39	NOS01	Four (4) Drum Filters	1.5 tons/hr paper	N/A	N/A	N/A	February 25, 2011

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NOE41	NOS11	Paper Machine	1.5 tons/hr paper	N/A	N/A	N/A	February 25, 2011
NOE42-44	N/A	Three (3) Calendering Machines	1.5 tons/hr paper	N/A	N/A	N/A	February 25, 2011
NOE45	NOS01	Slurry process tanks	1.5 tons/hr paper	N/A	N/A	N/A	February 25, 2011
NOE46	NOS08	Fiber Staple Dryer	1.5 tons/hr paper	N/A	N/A	N/A	February 25, 2011
NOE47	NOS09	Fiber Second Floor Room	N/A	N/A	N/A	N/A	February 25, 2011
NOE48	NOS10	Fiber Parts Cleaning Operation	N/A	N/A	N/A	N/A	February 25, 2011
NOE49A	NOS12	Extraction Column	1172.49 *DMAc Recovery Units/hr*[b]	DuPont Chloroform Constant Level Scrubber/Quench tank (NOMEX® Chloroform Scrubber)	NOC02	VOC/HAP	February 25, 2011
NOE49D	NOS12	Extraction Column	1172.49 *DMAc Recovery Units/hr*[b]	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOE49B	NOS12	Distillation Column	1172.49 *DMAc Recovery Units/hr*[b]	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOE49C	NOS12	Distillation Column	1172.49 *DMAc Recovery Units/hr*[b]	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOE50A	NOS12	Stripper Column	1172.49 *DMAc Recovery Units/hr*[b]	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOE51	NOS12	Quench process tank	1172.49 *DMAc Recovery Units/hr*[b]	N/A	N/A	N/A	February 25, 2011
NOE52	NOS12	Misc. process vessels	1172.49 *DMAc Recovery Units/hr*[b]	N/A	N/A	N/A	February 25, 2011
NOE101	NOS01	Spin Position SM5-1	100 lbs/hr virgin polymer	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE102	NOS01	Spin Position SM5-2	100 lbs/hr virgin polymer	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE103	NOS01	SM5 Wash/Draw Line	200 lbs/hr virgin polymer	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE104	NOS02	SM5 Dryer/Crystallizer	200 lbs/hr virgin polymer	N/A	N/A	N/A	February 25, 2011
NOE105	NOS02	Finish Application	275 lbs/hr virgin polymer	N/A	N/A	N/A	February 25, 2011
NOE106	NOS02	SM5 Packaging	200 lbs/hr virgin polymer	N/A	N/A	N/A	February 25, 2011

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NOE110	NOS01	SM1 Nitrogen Aspiration System Purge	2.93 tons/hr fiber	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE111	NOS01	SM2-4 Nitrogen Aspiration System Purge	2.93 tons/hr fiber	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOT01	NOS13	Polymer/solvent OST tank	40,000 gal	N/A	N/A	N/A	February 25, 2011
NOT02	NOS14	Polymer/solvent PMV tank	23,960 gal	N/A	N/A	N/A	February 25, 2011
NOT03-04	NOS03	Two (2) ICL storage tanks	48,000 gal each	N/A	N/A	N/A	February 25, 2011
NOT05-06	NOS04	Two (2) MPD storage tanks	27,100 gal east 18,200 gal west	N/A	N/A	N/A	February 25, 2011
NOT07-08	NOS19-20	Two (2) DMAc combined feed storage tanks	200,000 gal each	N/A	N/A	N/A	February 25, 2011
NOT09-12	NOS15-18	Four (4) DMAc storage tanks	3 x 38,000 gal 1 x 68,000 gal	N/A	N/A	N/A	February 25, 2011
NOT13	NOS12	Chloroform storage tank	68,000 gal	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT14	N/A	Spin tank	27,471 gal	N/A	N/A	N/A	February 25, 2011
NOT15	N/A	Deaerator supply tank	12,325 gal	N/A	N/A	N/A	February 25, 2011
NOT16	N/A	Misc. storage tanks	< 10,568 gal each	N/A	N/A	N/A	February 25, 2011
NOT20	NOS12	Recycle tank		NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT21	NOS12	Start-up tank		NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT22	NOS12	Crud Collection tank		NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT23	NOS12	Pollution Abatement tank		NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT24	N/A	Recovered Solvent No. 3 Tank	37,800 gallons	N/A	N/A	N/A	February 25, 2011
NOT25	N/A	Spin Supply Tank	19,500 gallons	N/A	N/A	N/A	February 25, 2011
NOT26-27	N/A	DMAc Slurry Tanks	400 gallons each	N/A	N/A	N/A	February 25, 2011
NOT28	NOS12	Chloroform Storage Tank	68,400 gallons	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT29	NOS12	Vaporizer Feed Tank	10,000 gallons	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT30	N/A	Chloroform Crud Tank	500 gallons	N/A	N/A	N/A	February 25, 2011

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NOT31	N/A	Automatic Pressure Filter Feed Tank	16,000 gallons	N/A	N/A	N/A	February 25, 2011
NOT32	N/A	Automatic Pressure Filter Accepts Tank	16,000 gallons	N/A	N/A	N/A	February 25, 2011
NOT33	N/A	Secondary Filter Feed Tank	13,300 gallons	N/A	N/A	N/A	February 25, 2011
NOT34	N/A	Filter Aid Feed Tank	1,000 gallons	N/A	N/A	N/A	February 25, 2011

Notes: [a] Not a control device as the solvent recovery is inherent process equipment.
[b] This is the capacity of the system. This applies to NOE49A through NOE52.

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Kevlar® Process Area							
SEE01	SES04	Polymerization/Mixer	25.5 *Kevlar® Polymerization Units/hr*	DuPont designed solvent recovery system including scrubber, extraction and distillation. This system is in operation over the entire Kevlar® process area.	SCD06	VOC/HAP	September 22, 2017
SEE02	SES04	Milling	Same as SEE01	N/A	N/A	N/A	September 22, 2017
SEE03	SES04	Polymer Washing	Same as SEE01	N/A	N/A	N/A	September 22, 2017
SEE04	SES04	Polymer Dryer	Same as SEE01	N/A	N/A	N/A	September 22, 2017
SEE11(A)	SES05, 12, 13, 15, 21-23	Plant 2 Mixers	12.64 *Kevlar® Solution Prep Units/hr*	N/A	N/A	N/A	September 22, 2017
SEE11(B)	SES05, 12, 13, 15, 21-23	Plant 3 Mixers	Same as SEE11A	N/A	N/A	N/A	September 22, 2017
SEE12(A)	SES05, 12, 13, 15, 21-23	Plant 2 Solution/Blending	Same as SEE11A	N/A	N/A	N/A	September 22, 2017
SEE12(B)	SES05, 12, 13, 15, 21-23	Plant 3 Solution/Blending	Same as SEE11A	N/A	N/A	N/A	September 22, 2017
SEE21	SES08-11, 14, 16-20	Spinning Machine 6	56.23 *Kevlar® Spinning Units/hr*	N/A	N/A	N/A	September 22, 2017

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
SEE22	SES08-11, 14, 16-20	Spinning Machine 7	Same as SEE21	N/A	N/A	N/A	September 22, 2017
SEE23	SES08-11, 14, 16-20	Spinning Machine 31	Same as SEE21	N/A	N/A	N/A	September 22, 2017
SEE24	SES08-11, 14, 16-20	Spinning Machine 32	Same as SEE21	N/A	N/A	N/A	September 22, 2017
SEE25	SES08-11, 14, 16-20	Spinning Machine RD	Same as SEE21	N/A	N/A	N/A	September 22, 2017
SEE26	SES08-11, 14, 16-20	Spinning Machine LD1	Same as SEE21	N/A	N/A	N/A	September 22, 2017
SEE31	SES01	Extraction Column	270 *Kevlar® Solvent Recovery Units/hr*	DuPont designed scrubber	SCD01	VOC/HAP	September 22, 2017
SEE32	SES01	Stripper Column	Same as SEE31	DuPont designed scrubber	SCD01	VOC/HAP	September 22, 2017
SEE33	SES01	Distillation Column	Same as SEE31	N/A	N/A	N/A	September 22, 2017
SEE34	SES01	Chloroform Column	Same as SEE31	DuPont designed scrubber	SCD01	VOC/HAP	September 22, 2017
SEE35	SES27	Sulfuric Acid tank	Same as SEE31	N/A	N/A	N/A	September 22, 2017
SET01	SES01	Chloroform storage tank	193,536 *Kevlar® Storage Units (KSU)*	DuPont designed scrubber or dedicated storage tank scrubber	SCD01 or SCD07	VOC/HAP	September 22, 2017
SET02	SES28	PPD storage tank	72,964 *KSU*	DuPont designed scrubber	SCD04	VOC/HAP	September 22, 2017
SET03	SES30	TCL – North storage tank	156,620 *KSU*	DuPont designed scrubber	SCD02	VOC	September 22, 2017
SET04	SES31	TCL – South storage tank	85,950 *KSU*	DuPont designed scrubber	SCD03	VOC	September 22, 2017
SET05	N/A	NMP storage tank	72,962 *KSU*	N/A	N/A	N/A	September 22, 2017
SET06	N/A	Premix Feed tank	1,031 *KSU*	N/A	N/A	N/A	September 22, 2017
SET07	N/A	Premix Reclaim tank	17,190 *KSU*	N/A	N/A	N/A	September 22, 2017
SET08	N/A	Filter Feed tank	10,505 *KSU*	N/A	N/A	N/A	September 22, 2017
SET09	N/A	Mother Liquor Receiver tank	2,674 *KSU*	N/A	N/A	N/A	September 22, 2017
SET10	N/A	Mother Liquor tank	4,966 *KSU*	N/A	N/A	N/A	September 22, 2017
SET11	N/A	Wash Receiver No. 1 tank	1,910 *KSU*	N/A	N/A	N/A	September 22, 2017
SET12	N/A	Weak Feed tank	522,767 *KSU*	N/A	N/A	N/A	September 22, 2017
SET13	N/A	Intercept tank	7,124 *KSU*	N/A	N/A	N/A	September 22, 2017

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
SET14	N/A	Solvent Premix tank	33,014 *KSU*	N/A	N/A	N/A	September 22, 2017
SET15	N/A	Premix Mix tank	27,888 *KSU*	N/A	N/A	N/A	September 22, 2017
SET16	N/A	Premix storage tank	209,145 *KSU*	N/A	N/A	N/A	September 22, 2017
SET17	SES29	PPD storage tank	124,150 *KSU*	DuPont designed scrubber	SCD05	VOC/HAP	September 22, 2017
SET18	N/A	West Wash Receiver No. 1 Tank	2,894 *KSU*	N/A	N/A	N/A	September 22, 2017
SET19	N/A	West Mother Liquor Receiver Tank	4,259 *KSU*	N/A	N/A	N/A	September 22, 2017
SET20	N/A	Mother Liquor Neutralization Tank	9,710 *KSU*	N/A	N/A	N/A	September 22, 2017
SET21	N/A	Dehy Feed Tank (also backup to SET 12)	322,790 *KSU*	N/A	N/A	N/A	N/A
SEE36	N/A	Cooling Tower Cell #1	2600 *Kevlar® Cooling Units*	N/A	N/A	N/A	September 22, 2017
SEE37	N/A	Cooling Tower Cell #2	2600 *Kevlar® Cooling Units*	N/A	N/A	N/A	September 22, 2017
SEE38	N/A	Cooling Tower Cell #3	2600 *Kevlar® Cooling Units*	N/A	N/A	N/A	September 22, 2017
SEE39	N/A	PPD Unloading Station #1	180,510 *PPD Loading Units*	N/A	N/A	N/A	September 22, 2017
SEE40	N/A	PPD Unloading Station #2	180,510 *PPD Loading Units*	N/A	N/A	N/A	September 22, 2017
SEE41	N/A	S.M. Yarn Processor No. 5	3.75 *Kevlar® Spinning Units/hr*	N/A	N/A	N/A	July 8, 1987
SEE42	N/A	PPD Unloading Station #3	180,510 *PPD Loading Units*	N/A	N/A	N/A	September 22, 2017
Tyvek® Process Area							
TYE01	TYS04	Line 1 T-10 Coater/Finishing Line	2 tons/hr Tyvek®	N/A	N/A	N/A	N/A
TYE02	TYS04	Line 2 T-10 Coater/Finishing Line	2 tons/hr Tyvek®	N/A	N/A	N/A	N/A
TYE03	TYS04	T-12 Coater/Finishing Line	1.6 tons/hr Tyvek®	N/A	N/A	N/A	N/A
TYE04	TYS03	L1 – Mix tank	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE05-08	TYS03	L1 – Mixers (4)	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE09	TYS03	L1 – Spin Cell	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
TYE10	TYS03	L1 – Blow Down Cell	1 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE11	TYS03	L2 – Mix tank	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE12-13	TYS03	L2 – Mixers (2)	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE14	TYS03	L2 – Spin Cell	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE16	TYS01	L4 – Spin Solution Mixer	3.5 tons/hr Tyvek®	L4 Condenser L4 Absorption Sys. L4 Thermal Oxidizer (controls TYE16-20)	TYC01 TYC02 TYC03	VOC	December 28, 2011
TYE17	TYS01	L4 – Spin Cell	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	December 28, 2011
TYE18	TYS01	L4 – Nitrogen Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	December 28, 2011
TYE19	TYS01	L4 – Absorbant Carry-Over	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	December 28, 2011
TYE20	TYS01	L4 – Air Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	December 28, 2011
TYE21	TYS02	L7 – Spin Solution Mixer	3.5 tons/hr Tyvek®	L7 Condenser L7 Absorption Sys. L7 Thermal Oxidizer (controls TYE21-25)	TYC04 TYC05 TYC06	VOC	December 28, 2011
TYE22	TYS02	L7 – Spin Cell	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	December 28, 2011
TYE23	TYS02	L7 – Nitrogen Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	December 28, 2011
TYE24	TYS02	L7 – Absorbant Carry-Over	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	December 28, 2011
TYE25	TYS02	L7 – Air Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	December 28, 2011
TYT01-02	TYS05	L4 Spin Agent Storage tanks (2)	15,000 gal each	N/A	N/A	N/A	December 28, 2011
TYT03	TYS06	L7 Spin Agent Storage tank	6,250 gal	N/A	N/A	N/A	December 28, 2011
TYT04-08	TYS03	L1-2 Spin Agent Storage tanks (5)	1 – 25,000 gal 4 – 10,800 gal	N/A	N/A	N/A	N/A
TYT09	TYS09	Misc. Storage tanks	<19,815 gal	N/A	N/A	N/A	N/A

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Zytel® Process Area							
ZYE01A	ZYS01-A	Commercial Lines 1-2 Salt Preparation including primary reactor and miscellaneous tanks	42.25 *Zytel® Polymerization Units/hr*	N/A	N/A	N/A	N/A
ZYE01B	ZYS01-B	Commercial Line 3 (I-ITN®) Salt Preparation including primary reactor, miscellaneous tanks and TA storage silo	20.3 *Zytel® Polymerization Units/hr*	N/A	N/A	N/A	August 6, 2019
ZYE02	ZYS02-04	Commercial Line 1 including: additive extruder, extruder feed hopper, melt tank, separators, dies, cooler/dryer, mixer and distearate dump station	7.0 *Zytel® Polymerization Units/hr*	Fabric filter	ZYC01	PM	N/A
ZYE03	ZYS05-06	Commercial Line 2 including: separators, dies and cooler/screener	7.0 *Zytel® Polymerization Units/hr*	Fabric filter	ZYC01	PM	N/A
ZYE04	ZYS08-09	Commercial Line 3 (HTN®) including: finishers, dies and cooler/screener	1.6535 *Zytel® Polymerization Units/hr*	Fabric filter Cyclone Separator	ZYC01 ZYC02	PM PM	August 6, 2019
ZYE06	ZYS15-18	Product Storage Silos (5) with a total of four vents	84.5 *Zytel® Product Units*	Fabric filter	ZYC01	PM	August 6, 2019
ZYE07	ZYS23-26	Packaging: truck, railcar, sealand container, box and bag loading	84.5 *Zytel® Product Units*	Fabric filter	ZYC01	PM	August 6, 2019
ZYE08-10	ZYS27	Three (3) Dowtherm® Vaporizers	14.5 MMBtu/hr heat input each	Oxygen Trim System	N/A	N/A	N/A

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ZYE11	ZYS27	Dowtherm® Vaporizer VAP-3R	20 MMBtu/hr	Oxygen Trim System	N/A	N/A	N/A
ZYE13	ZYS28	TPA Solids Unloading	25,000 *Zytel® TPA Solids Unloading Units*	N/A	N/A	N/A	August 6, 2019
ZYE14	ZYS29	Line 3 Reflux Level Pot	625 *Zytel® MPMD Storage Units*	Zytel® Environmental Abatement Facility (EAF) Scrubber	ZYC03	VOC	August 6, 2019
ZYT01	N/A	Diamine Storage tank	2,500,000 *Zytel® Diamine Storage Units*	N/A	N/A	N/A	August 6, 2019
ZYT02-07	N/A	Dowtherm® Storage tanks (6)	2 – 1,486 gal 2 – 983 gal 1 – 4,000 gal 1 – 3,600 gal	N/A	N/A	N/A	N/A
ZYT08	N/A	MPMD Storage Tank	125,000 *Zytel® MPMD Storage Units*	N/A	N/A	N/A	August 6, 2019
ZYT09-10	N/A	Salt Make-Up & Storage (2)	2 @ 450,000 *Zytel® Salt Make-Up & Storage Units*	N/A	N/A	N/A	August 6, 2019
ZYT11	N/A	Diamine/MPMD Blend Tank	12,500 *Zytel® MPMD Storage Units*	N/A	N/A	N/A	N/A
ZYT12	N/A	3-MP Storage Tank	25,000 *Zytel® MPMD Storage Units*	N/A	N/A	N/A	August 6, 2019
ZYT13	N/A	Amine Storage Tank	21,250 *Zytel® MPMD Storage Units*	N/A	N/A	N/A	August 6, 2019

Gypsum Production Process							
Emission Unit ID	**Stack ID**	**Emission Unit Description**	**Size/Rated Capacity***	**Pollution Control Device (PCD) Description**	**PCD ID**	**Pollutant Controlled**	**Applicable Permit Date**
GYE01	N/A	Gypsum Plant (1982) consists of the following: • one ship unloading conveyor; • one silo hopper (input); • one silo conveyor (input); • one ball mill; • one product conveyor (output);	41,780 lbs (gypsum)/hr	N/A	N/A	N/A	May 17, 2002

Gypsum Production Process							
Emission Unit ID	**Stack ID**	**Emission Unit Description**	**Size/Rated Capacity***	**Pollution Control Device (PCD) Description**	**PCD ID**	**Pollutant Controlled**	**Applicable Permit Date**
		• five gypsum processing centrifuges; • one dryer; • one aragonite/ limestone active storage pile, approximately 1.08 acres					
Miscellaneous Operations							
MIE01	N/A	Groundwater Remediation System	7,500 gal/hr	N/A	N/A	N/A	N/A
MIE02	N/A	Wastewater Treatment Plant	600,000 gal/hr	N/A	N/A	N/A	N/A
MIE03-04	MIS01-02	Diesel-Fired Emergency Generators (2)	1095 hp each	N/A	N/A	N/A	N/A
MIE05	N/A	Miscellaneous Solvent (VOC based) Metal Cleaning Operations (cold cleaning)	Various	N/A	N/A	N/A	N/A
MIE06-07	MIS03-04	Two Diesel-Fired Fire Pumps (water)	370 hp each	N/A	N/A	N/A	N/A
MIE08	MIS05	One Diesel-Fired Fire Pump (water)	303 hp	N/A	N/A	N/A	N/A
MIE09-10	MIS06-07	Two Diesel-Fired Fire Pumps (foam)	76 hp each	N/A	N/A	N/A	N/A
MIE13	MIS10	Miscellaneous portable temporary rental diesel-fired engines	≤500 hp each	N/A	N/A	N/A	N/A
MIE14	MIS14	Diesel emergency generator (Gypsum Plant)	235 hp	N/A	N/A	N/A	N/A

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

Note: DMAc = dimethylacetamide.

Process Equipment Requirements - NOMEX® Process Area

Limitations

1. **Process Equipment - NOMEX® Process Area – Limitations – Emission Controls -** Volatile Organic Compound emissions from the following equipment shall be controlled by the NOMEX® DMAc Scrubber (NOC 03):

   SM5 Spinning Line (NOE 101-103)
   3DP ("belt") Press (NOE 35)
   Dissolving tank (NOE 02)
   Spinning machines #1-#4 (NOE 15-18) (1st Floor Exhaust)
   Fibridation units (NOE 027-034)
   Fibridation units (NOE 107-108)
   M1-4 Nitrogen Aspiration system purge (NOE 110 and 111)
   Wash/Draw Lines #1-5 (NOE 19-23)

   The scrubber shall be operated such that it will maintain a VOC reduction efficiency of at least 50%. The scrubber shall be provided with adequate access for inspection. (9VAC 5-80-110, Condition E.10 of 5/30/96 RACT Agreement, and Conditions 3 and 17 of the 2/25/2011 Permit)

2. **Process Equipment - NOMEX® Process Area – Limitations – Emission Controls -** VOC emissions from the NOMEX® area shall be controlled by the following work practices:

   a. Operation of spin cells at the minimum pressure necessary to prevent the introduction of oxygen,

   b. Installation of covers on storage tanks and tubs to reduce evaporative losses (spun tub covers are provided when product is stored),

   c. Minimum feasible Wash/Draw bath temperatures, and

   d. Other reasonable measures to reduce controlled and uncontrolled emissions.

   Compliance with 2.a shall be determined as stated in Condition 15. (9VAC 5-80-110 and Condition 4 of the 2/25/2011 Permit)

3. **Process Equipment - NOMEX® Process Area – Limitations – Emission Controls -** Volatile Organic Compound emissions from the following equipment shall be controlled by the NOMEX® Chloroform Scrubber (NOC 02):

Extraction Column (NOE 49A)
Extraction column (NOE 49D)
Two Distillation Columns (NOE 49B and 49C)
Stripper Column (NOE 50A)
Chloroform storage tank (NOT 13)
Recycle Tank (NOT 20)
Start-up Tank (NOT 21)
Crud Collection Tank (NOT 22)
Pollution Abatement Tank (NOT 23)
Chloroform storage tank (NOT 28)
Vaporizer feed tank (NOT 29)
Chloroform crud tank (NOT 30)

The scrubber shall be operated such that it will maintain a VOC reduction efficiency of at least 95%. The scrubber shall be provided with adequate access for inspection.
(9VAC 5-80-110, 9VAC 5-40-3430 B, 9VAC 5-40-3440 B, and Conditions 5 and 18 of the 2/25/2011 Permit)

4. **Process Equipment - NOMEX® Process Area – Limitations – Emission Controls -** Fugitive VOC emissions from the solvent recovery area equipment in chloroform service shall be controlled by a leak detection and repair (LDAR) program in accordance with 40 CFR 60 Subpart VV, with the exception of the reporting requirements of 60.487. The covered equipment shall include all chloroform-containing vessels, equipment and lines that would be regulated by 40 CFR 60 Subpart VV if the facility were subject to Subpart VV. Equipment shall be considered to be leaking when a reading above 500 ppm of VOC is obtained using an approved measurement technique. Note: The facility is not actually subject to 40 CFR 60 Subpart VV.
(9VAC 5-80-110, Condition E.8 of 1996 RACT Agreement and Condition 6 of the 2/25/2011 Permit)

5. **Process Equipment - NOMEX® Process Area – Limitations – Emissions -** Volatile Organic Compound (VOC) emissions from NOMEX® spinning and solvent recovery operations shall not exceed 9.65 pounds of VOC emissions per thousand pounds of solvent feed, calculated in accordance with the equations in 40 CFR 60 Subpart HHH (although the facility is not actually subject to 40 CFR 60 Subpart HHH) and calculated monthly on a six month rolling average basis.
(9VAC 5-80-110, Condition E.11 of 1996 RACT Agreement and Condition 20 of the 2/25/2011 Permit)

6. **Process Equipment - NOMEX® Process Area – Limitations – Emissions** - Volatile Organic Compound emissions from the operation of the following equipment, prior to the NOMEX® DMAc scrubber (NOC 03), shall not exceed the limitations specified below:

	lbs/hr	tons/yr
Combined Spinning Machines #1-4 (NOE 15-18) (as captured by the 1st floor spinning exhaust system)	34.1	124.4
SM1 Nitrogen Aspiration System Purge (NOE 110) (calculated monthly as the sum of each consecutive 12 month period)	N/A	3.9
SM2-SM4 Nitrogen Aspiration System Purge (NOE 111) (calculated monthly as the sum of each consecutive 12 month period)	N/A	7.5

Compliance with the spinning machine (NOE 15-18) emission limits shall be determined in accordance with Conditions 2.a, 15 and 16.g. Compliance with the nitrogen aspiration system purge (NOE 110 and 111) emission limits shall be determined in accordance with Condition 13.
(9VAC 5-80-110 and Condition 8 of the 2/25/2011 Permit)

7. **Process Equipment - NOMEX® Process Area – Limitations – Emissions** - Emissions from the operation of the chloroform extraction system shall not exceed the limitations specified below:

   a. 3.5 lbs VOC (chloroform)/hr (average hourly emissions calculated monthly on a 12 month rolling average basis); and

   b. 15 tons VOC (chloroform)/yr (calculated monthly as the sum of each consecutive 12 month period).

   (9VAC 5-80-110 and Condition 9 of the 2/25/2011 Permit)

8. **Process Equipment - NOMEX® Process Area – Limitations – Emissions** - Emissions from the operation of the NOMEX® plant processes (excluding finish on yarn as applied, polymer ingredients and the chloroform extraction system) shall not exceed the limitations specified below:

   a. 127.2 lbs VOC (dimethylacetamide)/hr (average hourly emissions calculated monthly on a 12 month rolling average basis); and

   b. 557.3 tons VOC (dimethylacetamide)/yr (calculated monthly as the sum of each consecutive 12 month period).

   (9VAC 5-80-110 and Condition 10 of the 2/25/2011 Permit)

9. **Process Equipment - NOMEX® Process Area – Limitations – Emissions** - Emissions from the operation of the NOMEX® plant processes (dimethylacetamide, chloroform, finish on yarn as applied, and polymer ingredients) shall not exceed the limitations specified below:

   573.3 tons VOC/yr (calculated monthly as the sum of each consecutive 12 month period).

   (9VAC 5-80-110 and Condition 11 of the 2/25/2011 Permit)

10. **Process Equipment - NOMEX® Process Area – Limitations – Requirements by** Reference - The chloroform storage tank (NOT 28) and the vaporizer feed tank (NOT 29) shall be constructed and operated in compliance with all applicable requirements of 40 CFR 63 Subpart FFFF. For the chloroform storage tank (NOT 28), compliance with 40 CFR 63 Subpart FFFF shall also constitute compliance with 40 CFR 60 Subpart Kb. (9VAC 5-80-110, 40 CFR 63.2535(c), 40 CFR 63 Subpart FFFF, 40 CFR 60 Subpart Kb, and Condition 19 of the 2/25/2011 Permit)

Monitoring

11. **Process Equipment - NOMEX® Process Area – Monitoring** – The NOMEX® DMAc Scrubber (NOC 03) shall be equipped with an exhaust gas flow meter, a scrubber liquid flow meter, a scrubber liquid DMAc concentration monitor and a device to continuously measure the differential pressure across the scrubber. The monitor, device and meters shall be installed in accessible locations and shall be maintained by the permittee such that they are in proper working order at all times (except for periods of required maintenance and calibration).
    (9VAC 5-80-110 and Condition 3 of the 2/25/2011 Permit)

12. **Process Equipment - NOMEX® Process Area – Monitoring** – The NOMEX® Chloroform Scrubber (NOC 02) shall be equipped with a scrubber liquid temperature gauge and a scrubber spray flow meter. The gauge and flow meter shall be installed in accessible locations and shall be maintained by the permittee such that they are in proper working order at all times (except for periods of required maintenance and calibration). In addition, the scrubber spray liquid shall be sampled daily. These samples shall be analyzed daily for chloroform concentration except for instances of laboratory analysis unavailability. Samples obtained during instances of laboratory analysis unavailability shall be analyzed for chloroform concentration on the first date when laboratory analysis becomes available.
    (9VAC 5-80-110 and Condition 5 of the 2/25/2011 Permit)

13. **Process Equipment - NOMEX® Process Area – Monitoring** – Each nitrogen aspiration system purge (NOE 110 and 111) shall be equipped with a temperature gauge and a gas flow meter. The temperature gauges and flow meters shall be installed in accessible locations and shall be maintained by the permittee such that they are in proper working order at all times. The permittee shall monitor and record the data provided by the monitoring devices at least once per shift. This data shall be used to determine compliance with the nitrogen aspiration system purge (NOE 110 and NOE 111) emission

limits specified in Condition 6, calculated monthly as the sum of each consecutive 12 month period. Unless otherwise approved by the Piedmont Regional Office, the DMAc concentration data used to determine compliance in accordance with this condition shall be calculated from the monitored temperature data, at least once per shift, as specified in the June 26, 2001 application amendment.
(9VAC 5-80-110 and Conditions 7 and 13 of the 2/25/2011 Permit)

14. **Process Equipment - NOMEX® Process Area – Monitoring** – Each monitoring device required by Conditions 11 (scrubber liquid flow meter, scrubber liquid DMAc concentration monitor and a device to continuously measure differential pressure drop across the scrubber) and 12 (scrubber spray liquid flow meter, scrubber liquid temperature gauge and scrubber spray liquid sample for chloroform concentration analysis) shall be observed by the permittee with a frequency of not less than once per shift, except for the once per day NOC 02 chloroform concentration analysis. The permittee shall keep a log of the observations. For NOC 02, for any such observation that reveals a scrubber spray flow less than 5 gpm, a scrubber spray chloroform concentration of greater than 10% or a spray temperature higher than 35 degrees Celsius, the permittee shall take corrective action to return NOC 02 to normal operation within one hour for the applicable monitored parameter (i.e. the applicable monitored parameter has returned to its normal range within one hour of discovery), follow the applicable malfunction provisions of 9VAC 5-20-180 or provide performance testing data certifying that the operation of the control device at the out-of-range level is consistent with the control efficiency required by Condition 3. For NOC 03, for any such observation that reveals a scrubber liquid flow less than 1,100 gpm, or a scrubber liquid DMAc concentration greater than 11,500 ppm, the permittee shall take corrective action to return NOC 03 to normal operation within one hour for the applicable monitored parameter (i.e. the applicable monitored parameter has returned to its normal range within one hour of discovery), follow the applicable malfunction provisions of 9VAC 5-20-180 or provide performance testing data certifying that the operation of the control device at the out-of-range level is consistent with the control efficiency required by Condition 1.
(9VAC 5-80-110 and Condition 12 of the 2/25/2011 Permit)

15. **Process Equipment - NOMEX® Process Area – Monitoring** – The facility shall examine on a once-per-shift basis the pressure balance condition of each operating spin cell. If necessary, the pressure balance of each operating cell shall be adjusted to a level consistent with Condition 2.a. The facility shall maintain a log documenting that the required examinations have been conducted for each shift. The requirements of this condition and Condition 2 shall be incorporated into the written operating procedures and operator training required by Condition 95.
(9VAC 5-80-110 and Condition 14 of the 2/25/2011 Permit)

Recordkeeping

16. **Process Equipment - NOMEX® Process Area – Process Equipment - Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and

format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. Records supporting all calculations required by 40 CFR 60 Subpart HHH as applied to the NOMEX® process area. Monthly calculations shall be performed using the procedures specified in 40 CFR 60 Subpart HHH (although the facility is not actually subject to 40 CFR 60 Subpart HHH) in calculating solvent feed, emissions and efficiencies.

b. Monthly calculations of average hourly and annual VOC emissions as required by Conditions 7, 8, 9 (annual only), including all documentation necessary to support these calculations.

c. Records (log) of the control device monitoring device observations required by Condition 14, as well as any corrective actions taken as a result of these observations.

d. Records of the data and calculations demonstrating compliance with the nitrogen aspiration system purge emission limits of Condition 6.

e. Records (log) of the once/shift spin cell pressure balance examinations required by Condition 15.

f. Records demonstrating compliance with the LDAR program specified in Condition 4.

g. Records of the initial performance test for NOC 03 and the 1st floor exhaust from spinning machines #1-#4 (NOE 15-18), required by Condition 12 of the 12/5/2008 permit, and records of the NOC 03 operating parameters during the performance test.

h. Safety Data Sheets (SDS) or other vendor information showing VOC content, hazardous air pollutant and/or toxic compound content, water content, and density for each solvent used.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC 5-80-110, 40 CFR 63 Subparts A and FFFF, and Conditions 16, 21 and 25 of the 2/25/2011 Permit)

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON MACT – 40 CFR 63 Subpart FFFF)

17. **Process Equipment - NOMEX® Process Area** – As of the date of this permit, the NOMEX® solvent recovery operation is considered a miscellaneous organic chemical manufacturing process unit for the purposes of 40 CFR 63 Subpart FFFF. See Conditions 105 through 117 of this permit for the MON MACT requirements for the NOMEX® process area.
(9VAC 5-80-110 and 40 CFR 63 Subparts A and FFFF)

Kevlar® Process Area

Limitations

18. **Process Equipment - Kevlar® Process Area – Limitations** - Volatile Organic Compound (VOC) emissions from the following equipment shall be controlled by the Kevlar® Chloroform Scrubber (SCD 01):

    SEE 31 - Extraction Column
    SEE 32 - Stripper Column
    SEE 34 – Chloroform Column

    The scrubber shall be equipped with a scrubber spray flow meter. The flowmeter shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times (except for periods of required maintenance and calibration). The scrubber shall be provided with adequate access for inspection and shall be in operation when any of the equipment specified in this condition is operating.
    (9VAC 5-80-110, 9VAC 5-40-3430 B, 9VAC 5-40-3440 B, and Condition 1 of the 9/22/2017 Permit)

19. **Process Equipment - Kevlar® Process Area – Limitations** – VOC emissions from the SET 01 Chloroform Storage Tank shall be controlled by the dedicated storage tank scrubber (SCD 07) or the Kevlar® Chloroform Scrubber (SCD01). The dedicated storage tank scrubber (SCD 07) and the Kevlar® Chloroform Scrubber (SCD01) shall be provided with adequate access for inspection and shall be in operation when the chloroform storage tank is operating.
    (9VAC 5-80-110, 9VAC 5-40-3430 B, 9VAC 5-40-3440 B, and Condition 2 of the 9/22/2017 Permit)

20. **Process Equipment - Kevlar® Process Area – Limitations** - The Kevlar® Chloroform Scrubber (SCD01) and Chloroform Storage Tank Scrubber (SCD07) shall demonstrate a control efficiency for VOC of no less than 95 percent, to be demonstrated by continuous parametric monitoring and calculated monthly.
    (9VAC 5-80-110 and Condition 3 of the 9/22/2017 Permit)

21. **Process Equipment - Kevlar® Process Area – Limitations** – VOC emissions from each PPD storage tank (SET 02 and 17) shall be controlled by a water-based scrubber (SCD 04 and SCD 05). The scrubbers shall be provided with adequate access for inspection and shall be in operation when the PPD storage tanks are in use.
    (9VAC 5-80-110 and Condition 4 of the 9/22/2017 Permit)

22. **Process Equipment - Kevlar® Process Area – Limitations** – VOC emissions from each TCL storage tank (SET 03 and 04) shall be controlled by an oil-based scrubber (SCD 02 and SCD 03). The scrubbers shall be provided with adequate access for inspection and shall be in operation when the TCL storage tanks are in use.
    (9VAC 5-80-110 and Condition 5 of the 9/22/2017 Permit)

23. **Process Equipment - Kevlar® Process Area – Limitations** – Fugitive VOC emissions from the Kevlar® solvent recovery area equipment shall be controlled by a leak detection and repair (LDAR) program in accordance with 40 CFR 60 Subpart VV, with the exception of the reporting requirements of 60.487. The covered equipment shall include all n-methylpyrrolidone equipment and lines that would be regulated by 40 CFR 60 Subpart VV if the facility were subject to Subpart VV. Equipment shall be considered to be leaking when a reading above 500 ppm of VOC is obtained using an approved measurement technique. Note: The facility is not actually subject to 40 CFR 60 Subpart VV.
(9VAC 5-80-110, Condition E.5 of the of 1996 RACT Agreement, and Condition 6 of the 9/22/2017 Permit)

24. **Process Equipment – Kevlar® – Process Area – Limitations** – Fugitive VOC emissions from the Kevlar® solvent recovery area equipment in chloroform service, including all chloroform-containing vessels, equipment, lines, and components, shall be controlled by a leak detection and repair (LDAR) program in accordance with 40 CFR 63 Subpart FFFF.
(9VAC 5-80-110 and Condition 7 of the 9/22/2017 Permit)

25. **Process Equipment - Kevlar® Process Area – Limitations** – The throughput of VOC introduced as make-up additives into Kevlar® Cooling Tower Cells (SEE 36-38) in the water treatment chemicals shall not exceed 4.6 tons per year as a combined total, calculated monthly as the sum of each consecutive 12 month period.
(9VAC 5-80-110 and Condition 8 of the 9/22/2017 Permit)

26. **Process Equipment - Kevlar® Process Area – Limitations** – The Kevlar® spinning operations (SEE 21-26) shall process no more than 449,800 Kevlar® Spinning Units per year, calculated monthly as the sum of each consecutive 12 month period.
(9VAC 5-80-110 and Condition 9 of the 9/22/2017 Permit)

27. **Process Equipment - Kevlar® Process Area – Limitations** – The Kevlar® Polymerization Dryer (SEE 04) shall process no more than 204,000 Kevlar® Polymerization Units per year, calculated monthly as the sum of each consecutive 12 month period.
(9VAC 5-80-110 and Condition 10 of the 9/22/2017 Permit)

28. **Process Equipment - Kevlar® Process Area – Limitations** – The S.M. Yarn Processor No. 5 (SEE 41) shall process no more than 21,539 Kevlar® Spinning Units per year, calculated monthly as the sum of each consecutive 12 month period.
(9VAC 5-80-110 and Condition 4 of 7/8/1987 Permit)

29. **Process Equipment - Kevlar® Process Area – Limitations** – Volatile Organic Compound (n-methylpyrrolidone) emissions from Kevlar® polymerization and solvent recovery operations shall not exceed 17 pounds of VOC emissions per thousand pounds of solvent feed, calculated in accordance with the equations in 40 CFR 60 Subpart HHH (although the facility is not actually subject to 40 CFR 60 Subpart HHH) and calculated monthly on a six month rolling average basis. The monthly calculations required by this

condition shall be performed using the procedures specified in 40 CFR 60 Subpart HHH (although the facility is not actually subject to 40 CFR 60 Subpart HHH) in calculating solvent feed, emissions and efficiencies
(9VAC 5-80-110, Condition E.7 of 1996 RACT Agreement, and Conditions 12 and 13 of the 9/22/2017 Permit)

30. **Process Equipment - Kevlar® Process Area – Limitations** – Emissions from the operation of the Kevlar® solvent recovery chloroform extraction system (SET 01, SEE 31-34) shall not exceed the limitations specified below:

a. 3.8 lbs VOC per hour (average hourly emissions, as determined by a monthly chloroform material balance, calculated monthly on a 12 month rolling average basis); and

b. 15 tons VOC per year (as determined by a monthly chloroform material balance, calculated monthly on a 12 month rolling average basis).

(9VAC 5-80-110 and Condition 20 of the 9/22/2017 Permit)

31. **Process Equipment - Kevlar® Process Area – Limitations** – Emissions from the operation of the Kevlar® polymerization area (excluding finishing oils, polymer ingredients and the chloroform extraction system) shall not exceed the limitations specified below:

a. 8.8 lbs VOC per hour (average hourly emissions as n-methylpyrrolidone, calculated monthly on a 12 month rolling average basis); and

b. 35.3 tons VOC per year (as n-methylpyrrolidone).

Compliance with these emission limits shall be determined as stated in Conditions 27 and 43.c.
(9VAC 5-80-110 and Condition 14 of the 9/22/2017 Permit)

32. **Process Equipment - Kevlar® Process Area – Limitations** – Emissions from the application finishing oils in the Kevlar® spinning operations (SEE 21-26) shall not exceed the limitations specified below:

VOC	0.1 lbs/hr	0.5 tons/yr

Compliance with these emission limits shall be determined as stated in Condition 26.
(9VAC 5-80-110 and Condition 15 of the 9/22/2017 Permit)

33. **Process Equipment - Kevlar® Process Area – Limitations** – Emissions from the operation of the Kevlar® polymer dryer (SEE 04) shall not exceed the limits specified below:

Particulate Matter	0.5 lbs/hr	2.0 tons/yr

PM10	0.2 lbs/hr	0.6 tons/yr

Compliance with these emission limits shall be determined as stated in Condition 27. (9VAC 5-80-110 and Condition 16 of the 9/22/2017 Permit)

34. **Process Equipment - Kevlar® Process Area – Limitations** – Emissions from the operation of the interlace and winder equipment of the Kevlar® spinning operation (SEE 21-26) shall not exceed the limits specified below:

Particulate Matter	0.8 lbs/hr	3.0 tons/yr
PM10	0.1 lbs/hr	0.4 tons/yr

Compliance with these emission limits shall be determined as stated in Condition 26. (9VAC 5-80-110 and Condition 17 of the 9/22/2017 Permit)

35. **Process Equipment - Kevlar® Process Area – Limitations** – Emissions from the operation of the Kevlar® Cooling Tower Cells (SEE 36-38) shall not exceed the limits specified below:

Particulate Matter	3.3 lbs/hr	14.5 tons/yr
PM10	3.3 lbs/hr	14.5 tons/yr
VOC	1.1 lbs/hr	4.6 tons/yr

Compliance with these emission limits shall be determined as stated in Condition 25. (9VAC 5-80-110 and Condition 18 of the 9/22/2017 Permit)

36. **Process Equipment - Kevlar® Process Area – Limitations** – Emissions from the operation of the Kevlar® spinning operation (SEE 21-26) shall not exceed the limits specified below:

Sulfuric Acid Mist	3.3 tons/yr

Compliance with these emission limits shall be determined as stated in Condition 26. (9VAC 5-80-110 and Condition 19 of the 9/22/2017 Permit)

37. **Process Equipment - Kevlar® Process Area – Limitations** – Emissions from the application of S.M. Yarn Processor No. 5 (SEE 41) shall not exceed the limitations specified below:

Particulate Matter	1.31 lbs/hr	1.85 tons/yr

Compliance with these emissions limits shall be determined by compliance with Condition 28.
(9VAC 5-80-110 and Condition 5 of 7/8/1987 Permit)

38. **Process Equipment - Kevlar® Process Area – Limitations** – Visible emissions from SEE 04, SEE 21-26 and SEE 41 shall not exceed 20 percent opacity, except for one six minute period in any one hour of not more than 30 percent opacity. Failure to meet the requirements of this condition because of the presence of water vapor shall not be a violation of this section.
(9VAC 5-80-110 and 9VAC 5-50-80)

Monitoring

39. **Process Equipment - Kevlar® Process Area – Monitoring** – The Kevlar® Chloroform Scrubber (SCD 01) required in Condition 18 shall be equipped with a scrubber spray flow meter. The flow meter shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times (except for periods of required maintenance and calibration).
(9VAC 5-80-110 and Condition 1 of the 9/22/2017 Permit)

40. **Process Equipment - Kevlar® Process Area – Monitoring** – The storage tank scrubber (SCD 07) required in Condition 19 shall be equipped with devices to measure the vapor flow rate (from the chloroform storage tank to the new dedicated scrubber), the water content in the scrubber spray liquid (by measuring the water addition rate to the scrubber), the scrubber spray liquid flow rate, the chloroform concentration in the scrubber spray liquid (determined from daily samples at scrubber (SCD01)), and the scrubber spray liquid temperature. Monitoring devices shall be installed in an accessible location and shall be maintained by the permittee such that they are in proper working order at all times (except for periods of required maintenance and calibration).
(9VAC 5-80-110 and Condition 2 of the 9/22/2017 Permit)

41. **Process Equipment - Kevlar® Process Area - Monitoring** – Each emission unit subject to Condition 38 shall be observed visually at least once each operating month for at least a brief time period to determine which emissions units have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having any visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
(9VAC 5-80-110)

42. **Process Equipment - Kevlar® Process Area – Monitoring** – The scrubbers associated with the PPD storage tank (SET 02 and 17) and the TCL storage tank (SET 03 and 04) shall be equipped with devices to continuously detect the presence of scrubber liquid flow and alert the operators if the scrubber liquid flow is disrupted. Action will be taken as expeditiously as possible if spray liquid flow to the scrubber is disrupted. Records of

any actions taken shall be maintained with date, time, nature of the problem, and action taken. In addition, the permittee shall conduct an integrity inspection on each control device required by Conditions 21 and 22 at least every five years. The permittee shall make any necessary repairs to the control devices as expeditiously as possible. (9VAC 5-80-110)

Recordkeeping

43. **Process Equipment - Kevlar® Process Area – Recordkeeping** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. Emissions shall be calculated consistent with the procedures specified in Condition 29 and include all necessary supporting documentation. Records of all calculations required by Condition 29 shall be maintained.

b. Monthly calculations of average hourly and annual VOC emissions as required by Condition 30, as determined by a material balance of chloroform, including all documentation necessary to support these calculations.

c. Monthly and annual throughputs of the materials/units listed in Conditions 25-28; annual throughputs shall be calculated monthly as the sum of each consecutive 12 month period.

d. Compliance with the hourly emission limit of Condition 31 shall be determined monthly using the Condition 43.c production data for the most recent 12-month period (consecutive 12-month polymer production divided by consecutive 12-month operating hours). Consecutive 12- month operating hours shall include all hours where n-methylpyrrolidone is present in the equipment listed in the Emission Units Table.

e. Monthly and annual emissions of VOC from the Kevlar® polymerization area to verify compliance with the emissions limitations in Condition 31. The annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

f. Records demonstrating compliance with the LDAR program specified in Conditions 23 and 24.

g. Monthly and annual emissions calculations of sulfuric acid mist, required by Condition 36, and finishing oil VOC, required by Condition 32, from the Kevlar Spinning operations (SEE 21-26), including all documentation necessary to support these calculations. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

h. The results of the monthly visible emission surveys required by Condition 38 and details of any corrective action taken as a result of these inspections.

i. Any action taken to restore scrubber liquid flow to the scrubbers as required by Condition 42.

j. The results of the integrity inspections required by Condition 42 and details of any corrective action taken as a result of these inspections.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC 5-80-110 and Condition 23 of the 9/22/2017 Permit)

Reporting

44. **Process Equipment - Kevlar ® Process Area – Reporting** - The permittee shall report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of Condition Error! Reference source not found.. If the test indicates the facility is out of compliance with the standard contained in Condition 38, the source shall also report the length of time associated with any exceedance of the standard and the corrective actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office within seven days of the applicable test unless otherwise noted in Condition 133.
(9VAC 5-80-110)

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON MACT – 40 CFR 63 Subpart FFFF)

45. **Process Equipment - Kevlar ® Process Area** – As of the date of this permit, the Kevlar® polymer production and solvent recovery operations are considered miscellaneous organic chemical manufacturing process units for the purposes of 40 CFR 63 Subpart FFFF. See Conditions 105 through 117 of this permit for the MON MACT requirements for the Kevlar® process area.
(9VAC 5-80-110 and 40 CFR 63 Subparts A and FFFF)

Tyvek® Process Area (Lines 4 and 7)

Limitations

46. **Process Equipment - Tyvek® Process Area - Limitations** – Volatile Organic Compound (VOC) emissions from each Tyvek® line (except for the air stripper and nitrogen stripper) shall be controlled primarily by condenser(s). The condenser(s) shall be provided with adequate access for inspection and shall be in operation when the Tyvek® lines are operating.
(9VAC 5-80-110 and Condition 2 of the 12/28/2011 Permit)

47. **Process Equipment - Tyvek® Process Area - Limitations** – VOC emissions from non-condensable gases from the Tyvek® line condensers and, at a minimum, from the Tyvek® spin cell nitrogen stripper chambers shall be controlled by a VOC absorption

system. The VOC absorption system shall be provided with adequate access for inspection.
(9VAC 5-80-110 and Condition 3 of the 12/28/2011 Permit)

48. **Process Equipment - Tyvek® Process Area - Limitations** – VOC emissions from the Tyvek® line air strippers and the VOC absorption system exhaust shall be controlled by a heat regenerative incinerator. Supplemental fuel shall be combusted as necessary to maintain the required incinerator temperature as determined during performance testing. The heat regenerative incinerator shall be provided with adequate access for inspection.
(9VAC 5-80-110 and Condition 4 of the 12/28/2011 Permit)

49. **Process Equipment - Tyvek® Process Area - Limitations** – VOC emissions from the Tyvek® spin agent storage tanks (TYT 01-03) shall be controlled by a vapor return line to supply trucks for filling losses. The tanks shall have normally closed vent valves to prevent breathing losses, in accordance with the National Fire Prevention Association (NFPA) Section 30.
(9VAC 5-80-110, 9VAC 5-40-3430 B, 9VAC 5-40-3440 B, and Condition 7 of the 12/28/2011 Permit)

50. **Process Equipment - Tyvek® Process Area - Limitations** – At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.
(9VAC 5-80-110 and Condition 9 of the 12/28/2011 Permit)

51. **Process Equipment - Tyvek® Process Area - Limitations** – The approved fuel for the heat regenerative incinerator is natural gas. A change in the fuel may require a permit to modify and operate.
(9VAC 5-80-110 and Condition 6 of the 12/28/2011 Permit)

52. **Process Equipment - Tyvek® Process Area - Limitations** – The production of Tyvek® from Lines 4 and 7 shall not exceed 55,000 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC 5-80-110 and Condition 12 of the 12/28/2011 Permit)

53. **Process Equipment - Tyvek® Process Area - Limitations** – Although it is not directly applicable, the Tyvek® facility shall institute fugitive leak detection and repair procedures to correspond with the standards of 40 CFR 60 Subpart VV or equivalent with two exceptions; the facility shall not be subject to the reporting requirements in 60.487 and equipment shall be considered to be leaking when a reading above 500 ppm of VOC is obtained using an approved measurement technique. Records shall be maintained at

the facility in accordance with 60.486 and shall be submitted to the Piedmont Regional Office on request.
(9VAC 5-80-110, Condition E.16 of the of 1996 RACT Agreement, and Condition 14 of the 12/28/2011 Permit)

54. **Process Equipment - Tyvek® Process Area - Limitations** – Except where this permit is more restrictive than the applicable requirement, Tyvek® Lines 4 and 7 shall be operated in compliance with the requirements of 40 CFR 60, Subpart HHH.
(9VAC 5-80-110, 40 CFR 60, Subpart HHH and Condition 13 of the 12/28/2011 Permit)

55. **Process Equipment - Tyvek® Process Area - Limitations** – Emissions from the operation of Tyvek® Line 4 and Tyvek® Line 7 shall each not exceed the limits specified below:

Volatile Organic Compounds	13.8 lbs/hr	55.0 tons/yr
Hydrogen Fluoride	2.3 lbs/hr	N/A

Compliance with hourly and annual limits shall be demonstrated by calculating annual emissions on a 12-month rolling average basis. Hourly emissions shall be calculated by dividing annual emissions by 8,760 hours/yr.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 62.
(9VAC 5-80-110 and Condition 15 of the 12/28/2011 Permit)

56. **Process Equipment - Tyvek® Process Area - Limitations** – Visible emissions from the Tyvek® Lines 4 and 7 and heat regenerative incinerator shall not exceed five percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9VAC 5-80-110 and Condition 17 of the 12/28/2011 Permit)

Monitoring

57. **Process Equipment - Tyvek® Process Area - Monitoring** – Each emission unit subject to Condition 56 shall be observed visually at least once each operating month for at least a brief time period to determine which emissions units have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having any visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
(9VAC 5-80-110)

58. **Process Equipment - Tyvek® Process Area - Monitoring** – The control devices required by Conditions 46 - 48 shall be operated within the parameters ranges established during stack testing (e.g., heat regenerative incinerator inlet/outlet temperatures and gas flow rate). These control parameters shall remain consistent unless prior notification of a change is made to the Piedmont Regional Office.
(9VAC 5-80-110 and Condition 8 of the 12/28/2011 Permit)

59. **Process Equipment - Tyvek® Process Area - Monitoring** – The heat regenerative incinerator shall be equipped with a device to measure the incinerator chamber temperature. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the heat regenerative incinerator is operating.
(9VAC 5-80-110 and Condition 10 of the 12/28/2011 Permit)

60. **Process Equipment - Tyvek® Process Area - Monitoring** – The heat regenerative ceramic shall be inspected and replaced as recommended by the manufacturer in order to insure its effectiveness. These recommendations shall be readily accessible or posted conspicuously.
(9VAC 5-80-110 and Condition 5 of the 12/28/2011 Permit)

61. **Process Equipment - Tyvek® Process Area - Monitoring** – The permittee shall conduct an annual integrity inspection on the storage tank vapor return lines required by Condition 49. The permittee shall make any necessary repairs to the vapor return lines as expeditiously as possible.
(9VAC 5-80-110)

Recordkeeping

62. **Process Equipment - Tyvek® Process Area - Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. Annual production of Tyvek® Lines 4 and 7, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

    b. Material Safety Data Sheets (MSDS), Certified Product Data Sheets (CPDS), or other vendor information as approved by DEQ showing VOC content for each spiking agent, spin agent, polymer, or other agent used in the Tyvek® manufacturing process.

    c. Monthly and annual throughput in gallons or pounds of each spiking agent, spin agent, polymer, or other agent used in the Tyvek® manufacturing process. Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month

period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

d. Twelve-month rolling average emissions calculations for VOC and HAPs from the Tyvek® lines using calculation methods approved by the Piedmont Regional Office to verify compliance with the lb/hr and ton/yr emissions limitations in Condition 55.

e. Recordkeeping in accordance with 40 CFR 60 Subpart HHH (including amounts of solvent, make-up solvent, polymer usage, and solvent-to-polymer ratio in the spinning solution); calculation of monthly VOC emissions for each line; and total VOC emissions for the last twelve month period for each line.

f. Recordkeeping in accordance with 40 CFR 60 Subpart VV (40 CFR 60.486)

g. The results of the monthly visible emission surveys required by Condition 57 and details of any corrective action taken as a result of these inspections.

h. Operation and control device monitoring records for the heat regenerative incinerator as required in Condition 58.

i. The results of the annual integrity inspections required by Condition 61 and details of any corrective action taken as a result of these inspections.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC 5-80-110 and Conditions 13, 14, and 18 of the 12/28/2011 Permit)

Reporting

63. **Process Equipment - Tyvek® Process Area – Reporting** – The permittee shall report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of Condition 57. If the test indicates the facility is out of compliance with the standard contained in Condition 56, the source shall also report the length of time associated with any exceedance of the standard and the corrective actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office within seven days of the applicable test unless otherwise noted in Condition 133.
(9VAC 5-80-110)

64. **Process Equipment - Tyvek® Process Area - Reporting** – To demonstrate compliance with the requirement of Condition 54, the permittee shall submit a semi-annual report of the previous 6-month rolling average solvent emissions. In addition, an annual report demonstrating annual compliance shall be compiled. The semi-annual and annual reports shall be sent to the Piedmont Regional Office.
(9VAC 5-80-110 and Condition 13 of the 12/28/2011 Permit)

Zytel® Process Area

Limitations

65. **Process Equipment - Zytel® Process Area – Limitations** – Volatile Organic Compound emissions from the following equipment shall be controlled by the Zytel® Environmental Abatement Facility (EAF) Scrubber (ZYC 03):

ZYE 14 – Line 3 Reflux Level Pot

The scrubber shall be operated such that it will maintain a VOC reduction efficiency of at least 95%. The scrubber shall be provided with adequate access for inspection and shall be in operation, except for periods of scheduled maintenance as allowed by any applicable RCRA regulation up to a maximum of 240 hours per year, when any of the equipment specified in this condition is operating.
(9VAC 5-80-110 and Condition 1 of 8/DRAFT/2019 Permit)

66. **Process Equipment - Zytel® Process Area – Limitations** – The Zytel® EAF Scrubber (ZYC 03) shall be operated such that at all times of required operation, the scrubber liquid (water) flow rate is equal to or greater than 1.0 gallons per minute and the scrubber outlet gas temperature is equal to or less than 62 °C.
(9VAC 5-80-110 and Condition 2 of 8/DRAFT/2019 Permit)

67. **Process Equipment - Zytel® Process Area – Limitations** – Zytel® Continuous Polymerization Line 3 shall produce no more than 14,484 Zytel® Polymerization Units per year, calculated monthly as the sum of each consecutive 12 month period.
(9VAC 5-80-110 and Condition 5 of 8/DRAFT/2019 Permit)

68. **Process Equipment - Zytel® Process Area – Limitations** – Zytel® Continuous Polymerization Line 3 shall be operated such that the temperature at the Line 3 Reflux Level Pot (ZYE 14) does not exceed 80 °C as a three hour average.
(9VAC 5-80-110 and Condition 6 of 8/DRAFT/2019 Permit)

69. **Process Equipment - Zytel® Process Area – Limitations** – Emissions from the operation of Line 3 Reflux Level Pot (ZYE 14), as exhausted from the Zytel® EAF Scrubber (ZYC 03), shall not exceed the limitations specified below:

VOC	0.8 lbs/hr	3.6 tons/yr

Compliance with these emission limits shall be determined as stated in Conditions 65-68, 74-76 and 80.
(9VAC 5-80-110 and Condition 7 of 8/DRAFT/2019 Permit)

70. **Process Equipment - Zytel® Process Area – Limitations** – The Dowtherm® operations in the Zytel® process area shall institute fugitive leak detection and repair (LDAR) procedures to correspond with the standards of 40 CFR 60 Subpart VV with two exceptions; the facility shall not be subject to the reporting requirements in 60.487 and

equipment shall be considered to be leaking when a reading above 500 ppm of VOC is obtained using an approved measurement technique. Records shall be maintained at the facility in accordance with 60.486 and shall be submitted to the Piedmont Regional Office on request.
(9VAC 5-80-110 and Condition E.12 of 5/30/1996 RACT Agreement)

71. **Process Equipment - Zytel® Process Area – Limitations** – Emissions from the operation of Dowtherm® vaporizers ZYE 08-11 shall not exceed the limits specified below:

Particulate Matter	0.372 lbs/MMBtu
Sulfur Dioxide	2.64 lbs/MMBtu

(9VAC 5-80-110, 9VAC 5-50-10 D, 9VAC 5-40-900 and 9VAC 5-40-930)

72. **Process Equipment - Zytel® Process Area – Limitations** – Visible emissions from the Dowtherm® vaporizers ZYE 08-11 shall not exceed 20 percent opacity, except for one six minute period in any one hour of not more than 30 percent opacity. Failure to meet the requirements of this condition because of the presence of water vapor shall not be a violation of this section.
(9VAC 5-80-110 and 9VAC 5-50-80)

73. **Process Equipment - Zytel® Process Area – Limitations – MACT DDDDD** - As of the date of this permit, the Dowtherm® vaporizers ZYE08-11 are considered affected sources for the purposes of 40 CFR 63 Subpart DDDDD. See Condition 119 of this permit for the Boiler MACT requirements for the Dowtherm vaporizers ZYE08-11.
(9VAC 5-80-110 and 40 CFR 63 Subparts A and DDDDD)

Monitoring

74. **Process Equipment - Zytel® Process Area – Monitoring** – The Zytel® EAF Scrubber (ZYC 03) shall be equipped with a scrubber liquid (water) flow meter and a scrubber outlet gas temperature monitor. The flow meter and temperature monitor shall be installed in accessible locations and shall be maintained by the permittee such that they are in proper working order at all times (except for periods of required maintenance and calibration).
(9VAC 5-80-110 and Condition 3 of 6/DRAFT/2019 Permit)

75. **Process Equipment - Zytel® Process Area – Monitoring** – To ensure good performance, the Zytel® EAF Scrubber (ZYC 03) liquid flow meter and outlet gas temperature monitor shall be observed by the permittee with a frequency of not less than once per shift. The permittee shall keep a log of the observations required by this condition and any related corrective actions.
(9VAC 5-80-110 and Condition 4 of 6/DRAFT/2019 Permit)

76. **Process Equipment - Zytel® Process Area - Monitoring** – The Line 3 Reflux Level Pot (ZYE 14) shall be equipped with a temperature monitor. The temperature monitor shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times (except for periods of required maintenance and calibration) the process is in operation.
(9VAC 5-80-110 and Condition 6 of 6/DRAFT/2019 Permit)

77. **Process Equipment - Zytel® Process Area – Monitoring** – Each emission unit subject to Condition 72 shall be observed visually at least once each operating month for at least a brief time period to determine which emissions units have normal visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having above-normal visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
(9VAC 5-80-110)

Recordkeeping

78. **Process Equipment - Zytel® Process Area – Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. Monthly and annual production of Zytel® from Zytel® Continuous Polymerization Line 3, annual throughputs shall be calculated monthly as the sum of each consecutive 12 month period.

b. Records of each occasion the 3-hour average temperature at the inlet to Line 3 Reflux Level Pot (ZYE 14) exceeded the requirement of Condition 68.

c. Logs of the scrubber operating parameters observations as required by Condition 75.

d. Leak detection in repair records in accordance with 40 CFR 60 Subpart VV (40 CFR 60.486).

e. The emission factors used to calculate the emissions of each pollutant with an emission limitation in Condition 71.

f. The results of the monthly visible emission surveys required by Condition 77 and details of any corrective action taken as a result of these inspections.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC 5-80-110, Condition E.12 of 5/30/1996 RACT Agreement and Condition 12 of 8/DRAFT/2019 Permit)

Reporting

79. **Process Equipment - Zytel® Process Area – Reporting** – The permittee shall report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of Condition 77. If the test indicates the facility is out of compliance with the standard contained in Condition 72, the source shall also report the length of time associated with any exceedance of the standard and the corrective actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office within seven days of the applicable test unless otherwise noted in Condition 133.
(9VAC 5-80-110)

80. **Process Equipment - Zytel® Process Area - Reporting** – The permittee shall report, within 4 business hours, any occasion where the 3-hour average temperature at the Line 3 Reflux Level Pot (ZYE 14) exceeds 80 °C. The report shall include the duration of the excursion and any corrective action taken.
(9VAC 5-80-110 and Condition 6 of 8/DRAFT/2019 Permit)

Gypsum Production Process Equipment Requirements (Unit GYE01)

Limitations

81. **Fugitive Dust and Fugitive Emission Controls** – Fugitive dust and fugitive emission controls shall include the following, or equivalent, as approved by DEQ:

    a. Dust from material handling, drills, shot piles, screens, crushers, traffic areas, and load-outs, shall be controlled by wet suppression or equivalent (as approved by the DEQ). The wet suppression spray systems shall be operated at optimum design, and shall be installed with adequate access for inspection of the system.

    b. All material being stockpiled shall be kept adequately moist to control dust during storage and handling or covered at all times to minimize emissions.

    c. Dust from haul roads and traffic areas shall be controlled by the application of asphalt, water, suitable chemicals, or equivalent methods approved by the DEQ.

    d. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Dirt, product, or raw material spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.

    (9VAC 5-80-110, 9VAC 5-50-260, and Condition 3 of 05/17/2002 Permit)

82. **Process Equipment – Gypsum Production – Limitations – Throughput** - The production of Gypsum shall not exceed 180,000 tons per year (as determined from acid consumption, adjusted for moisture content), calculated monthly as the sum of each consecutive 12-month period.
(9VAC 5-80-110 and Condition 4 of 05/17/2002 Permit)

83. **Process Equipment – Gypsum Production – Limitations - Emissions** - Emissions from the operation of the Gypsum Plant shall not exceed the limits specified below:

	Particulate Matter		PM-10	
	lbs/hr	tons/yr	lbs/hr	tons/yr
Material Storage	0.6	2.6	0.3	1.3
Total	0.7	2.9	0.3	1.3

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 82.
(9VAC 5-80-110 and Condition 5 of 05/17/2002 Permit)

84. **Process Equipment – Gypsum Production – Limitations - Emissions** - Visible emissions from screening, stockpiles, surge bins, conveyor transfers, and fugitive emission sources shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9VAC 5-80-110 and Condition 6 of 05/17/2002 Permit)

Periodic Monitoring/Recordkeeping

85. **Process Equipment – Gypsum Production – Monitoring** - At least one time per week an observation for the presence of visible emissions from the pug mill, screening, stockpiles, bins, conveyor transfers, dryer, and fugitive emissions sources at the Gypsum Plant shall be made. If visible emissions are observed the permittee shall:

a. Take timely corrective action and re-conduct the observation for the presence of visible emissions to ensure that the Gypsum Plant has resumed operation with no visible emissions, or

b. Conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six minutes, to assure visible emissions from the Gypsum Plant are less than or equal to 10 percent opacity. If any of the 15-second observations exceeds 10 percent opacity, the observation period shall continue until a total of 60 minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the affected facility resumes operation within 10 percent opacity.

c. If twelve (12) consecutive weekly visible emissions inspections show no visible emissions for a facility, the permittee may reduce the monitoring frequency to once per month for that facility. Weeks in which the equipment does not operate do not factor into the twelve (12) consecutive weekly inspections. Anytime the monthly

visible emissions inspections show visible emissions or when requested by DEQ, the monitoring frequency shall be increased to once per week for that facility.

The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there were visible emissions, any VEE recordings, and any necessary corrective action. (9VAC 5-80-110)

86. **Process Equipment – Gypsum Production – Recordkeeping** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. Annual throughput of Gypsum Production, in tons, calculated monthly as the sum of each consecutive 12-month period.

b. The results of the weekly or monthly visible emission surveys as detailed and required by Condition 85 and details of any corrective action(s) taken as a result of these inspections.

c. Times and dates when the fugitive dust and fugitive emission controls required by Condition 81 were not in use or were inoperative while the gypsum production process equipment was operating.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC 5-80-110 and Condition 7 of 05/17/2002 Permit)

Testing

87. **Process Equipment – Gypsum Production – Testing** - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9VAC 5-80-110 and 9VAC 5-50-30)

88. **Process Equipment – Gypsum Production – Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9VAC 5-80-110)

Reporting

89. **Process Equipment – Gypsum Production – Reporting** - The permittee shall report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of Condition 85 if the test indicates the facility is out of compliance with the standard contained in Condition 84. The source shall also report the length of time associated with any

exceedance of the standard and the corrective actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office within seven days of the applicable test unless otherwise noted in Condition 133.
(9VAC 5-80-110)

Emergency Generators/Engines (MIE 03-04, MIE 06-10, MIE 13, MIE 14)

Limitations

90. **Emergency Generators/Engines – Limitations –Visible Emissions** – Visible emissions from MIE 03-04, MIE 06-10, MIE 13, and MIE 14 shall not exceed 20 percent opacity, except for one six-minute period in any one hour of not more than 30 percent opacity. Failure to meet the requirements of this condition because of the presence of water vapor shall not be a violation of this section.
(9VAC 5-80-110 and 9VAC 5-50-80)

91. **Emergency Generators/Engines – Limitations – MACT ZZZZ** - As of the date of this permit, the emergency engines (MIE 06-10, MIE 13, and MIE 14) are considered affected sources for the purposes of 40 CFR 63 Subpart ZZZZ. See Condition 118 of this permit for the RICE MACT requirements for the emergency engines.
(9VAC 5-80-110 and 40 CFR 63 Subparts A and ZZZZ)

Monitoring

92. **Emergency Generators/Engines – Monitoring** – Each emission unit subject to Condition 90 shall be observed visually at least once each operating month for at least a brief time period to determine which emissions units have normal visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having above-normal visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
(9VAC 5-80-110)

Recordkeeping

93. **Emergency Generators/Engines – Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to the results of the monthly visible emission surveys required by Condition 92 and details of any corrective action taken as a result of these inspections. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC 5-80-110)

Reporting

94. **Emergency Generators/Engines – Reporting** - The permittee shall report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of Condition 92. If the test indicates the facility is out of compliance with the standard contained in Condition 90, the source shall also report the length of time associated with any exceedance of the standard and the corrective actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office within seven days of the applicable test unless otherwise noted in Condition 133.
(9VAC 5-80-110)

Facility Wide Conditions

Work Practice, Recordkeeping and Reporting

Note: Conditions 95-97 apply to the NOMEX®, Kevlar®, Tyvek® and Zytel® process areas; Condition 98 applies only to the NOMEX® and Kevlar® process areas

95. **Facility Wide Condition – Operating Procedures** - The permittee shall have available written operating procedures for the related air pollution control equipment. Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedures. These procedures shall be based on the manufacturer's recommendations, at minimum. The permittee shall maintain records of training provided including names of trainees, date of training and nature of training.
(9VAC 5-80-110, Condition 28 of the 9/22/2017 Permit, Condition 7 of the 5/04/2017 Permit, Condition 22 of the 12/28/2011 Permit, Condition 30 of the 2/25/2011 Permit and Condition 17 of the 5/14/2010 Permit)

96. **Facility Wide Condition - Maintenance** – In order to minimize the duration and frequency of excess emissions, including visible emissions, due to malfunctions of process equipment or air pollution control equipment, the permittee shall:

a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.

b. Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns.

(9VAC 5-80-110, Condition 28 of the 09/22/2017 Permit, Condition 7 of the 5/04/2017 Permit, Condition 22 of the 12/28/2011 Permit, Condition 29 of the 2/25/2011 Permit and Condition 17 of the 5/14/2010 Permit)

97. **Facility Wide Condition – Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. Operator training records required by Condition 95.

b. Written operating procedures for all process equipment and air pollution control equipment as required by Condition 95.

c. A maintenance schedule for all process equipment and air pollution control equipment as required by Condition 96.

d. Scheduled and unscheduled maintenance records for all process equipment and air pollution control equipment, including catalyst bed replacements as required by Condition 96.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9VAC 5-80-110 E, Conditions 23 and 28 of the 9/22/2017 Permit, Conditions 16 and 29-30 of the 2/25/2011 Permit, Conditions 18 and 22 of the 12/28/2011 Permit and Conditions 12 and 17 of the 5/14/2010 Permit)

98. **Facility Wide Condition – Reporting** – The permittee shall submit the results of demonstrations in which the 6-month average VOC control efficiency in any plant as specified in the 5/30/1996 RACT Agreement is not demonstrated. These reports shall be submitted at the end of each calendar quarter. However, if the permittee is successful in demonstrating compliance with the VOC control efficiency in each plant during a particular quarter, a report stating this shall be submitted to the Piedmont Regional Office semiannually. Any such semiannual reports may be included in the reports required by Condition 131.
(9VAC 5-80-110 and Condition E.4 of 5/30/1996 RACT Agreement)

Solvent Metal Cleaning Operations (Cold Cleaning)

Note: The requirements of Conditions 99 - 103 are not applicable to aqueous-based solutions.

99. **Facility Wide Condition – Cold Cleaning –Emission controls** – No owner or other person shall use or permit the use of any cold cleaner unless such cleaner is equipped with a control method that will remove, destroy or prevent the discharge into the atmosphere of at least 85% by weight of volatile organic compound emissions. Achievement of this emission standard by use of the methods in Conditions 100 -102 will be acceptable to the board.
(9VAC 5-80-110 and 9VAC 5-40-3280 C)

100. **Facility Wide Condition – Cold Cleaning - Emission controls** – Emissions from each solvent metal cleaning operation (cold cleaning) shall be controlled as follows:

a. Covers or enclosed remote reservoirs shall be provided. Covers shall be designed so that they can be easily operated with one hand (covers for larger degreasers may require mechanical assistance, by spring loading, counterweighting or powered systems). Enclosed remote reservoirs shall be designed such that they provide reduction effectiveness equivalent to that of a cover.

b. External or internal drainage facilities shall be provided to collect and return the solvent to a closed container or a solvent cleaning machine. The drainage facilities may be external for applications where an internal type cannot fit into the cleaning system.

c. A permanent label summarizing the operating procedures in Condition 101 shall be placed in a conspicuous location on or near the degreaser.

(9VAC 5-80-110 and 9VAC 5-40-3290 C1)

101. **Facility Wide Condition – Cold Cleaning - Operating Practices** – The permittee shall operate each solvent metal cleaning operation (cold cleaning) consistent with good operating practices including the following:

a. Waste solvent shall not be disposed of or transferred to another party, such that greater than 20% of the waste (by weight) can evaporate into the atmosphere. Waste solvent shall only be stored in closed containers.

b. The degreaser cover shall be closed whenever not handling parts in the cleaner.

c. Cleaned parts shall be drained for at least 15 seconds or until dripping ceases.

(9VAC 5-80-110 and 9VAC 5-40-3290 C2)

102. **Facility Wide Condition – Cold Cleaning – Work Practices** - The permittee shall dispose of waste solvent from each solvent metal cleaning operation (cold cleaning) by one of the following methods:

a. Reclamation (either by outside services or in-house).

b. Incineration.

(9VAC 5-80-110 and 9VAC 5-40-3290 D)

103. **Facility Wide Condition – Cold Cleaning –Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to records documenting that each solvent metal cleaning operation (cold cleaning) at the

facility is in compliance with the requirements of Conditions 99 - 102. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9VAC 5-80-110)

Testing

104. **Facility Wide Testing** - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9VAC 5-80-110)

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (NOMEX® and Kevlar® Process Areas)

General

105. **MACT Subpart FFFF – Requirements by Reference**- The permittee shall be in compliance with the applicable emission limits and work practice standards in Tables 1 through 7 to 40 CFR 63 Subpart FFFF at all times, and the permittee shall meet the requirements specified in §§63.2455 through 63.2490 (or the alternative means of compliance in §63.2495, §63.2500, or §63.2505), except as specified in paragraphs (b) through (s) of 40 CFR 63.2450. The permittee shall meet the notification, reporting, and recordkeeping requirements specified in §§63.2515, 63.2520, and 63.2525. As of the date of this permit, Tables 1, 4, 6 and 7 are applicable to the permittee.
(9VAC 5-80-110 and 40 CFR 63.2450(a))

106. **MACT Subpart FFFF – Requirements by Reference**- The permittee shall determine if an emission stream is a halogenated vent stream, as defined in §63.2550, by calculating the mass emission rate of halogen atoms in accordance with §63.115(d)(2)(v). Alternatively, the permittee may elect to designate the emission stream as halogenated.
(9VAC 5-80-110 and 40 CFR 63.2450(b))

107. **MACT Subpart FFFF – Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the permittee shall operate in compliance with all applicable requirements of 40 CFR 63 Subparts A and FFFF. Table 12 of 40 CFR 63 Subpart FFFF shows which parts of the General Provisions in 40 CFR 63.1 through 63.13 apply to the permittee.
(9VAC 5-80-110 and 40 CFR 63 Subparts A and FFFF)

Closed-Vent System Requirements

108. **MACT Subpart FFFF** - Except when complying with §63.2485, if the permittee reduces organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, the permittee shall meet the requirements of §63.982(c) and the requirements referenced therein.

a. The permittee shall submit with the Notification of Compliance Status, a monitoring plan containing the information specified in 40 CFR 63.999(b)(2)(i) and (ii) to identify the parameters that will be monitored to assure proper operation of each control device.

b. The permittee shall monitor the parameters specified in the Notification of Compliance Status or in the operating permit application or amendment. Records shall be generated as specified in 40 CFR 63.998(d)(2)(i).

c. The permittee shall operate and maintain each nonflare control device so that the monitored parameters defined as required in paragraph (a) of this condition remain within the ranges specified in the Notification of Compliance Status whenever emissions of regulated material are routed to the control device except during periods of start-up, shutdown, and malfunction as specified in 40 CFR 63 Subpart FFFF.

d. The permittee shall prepare and submit with the Notification of Compliance Status, as specified in 40 CFR 63.999(b)(2), either a design evaluation that includes the information specified in paragraph (e) of this condition or the results of the performance test as described in paragraph (b)(1)(ii) of 40 CFR 63.985.

e. The design evaluation shall include documentation demonstrating that the control device being used achieves the required control efficiency during the reasonably expected maximum storage vessel filling or transfer loading rate. This documentation is to include a description of the gas stream that enters the control device, including flow and regulated material content, and the information specified in paragraphs (b)(1)(i)(A) through (E) of 40 CFR 63.985, as applicable. For storage vessels, the description of the gas stream that enters the control device shall be provided for varying liquid level conditions. This documentation shall be submitted with the Notification of Compliance Status as specified in 40 CFR 63.999(b)(2).

f. Except as allowed by Condition 110.a, each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device.

g. Except as allowed by Condition 110.a, closed vent systems used to comply with the provisions of 40 CFR 63 Subpart FFFF shall be operated at all times when emissions are vented to, or collected by, them.

Closed-Vent LDAR Requirements

h. Except for any closed vent systems that are designated as unsafe or difficult to inspect as provided in paragraphs (b)(2) and (3) of 40 CFR 63.983, each closed vent system shall be inspected as specified in paragraph (i) of this condition.

i. If the closed vent system is constructed of hard-piping, the permittee shall conduct an initial inspection according to the procedures in paragraph (c) of 40 CFR 63.983 and conduct annual inspections for visible, audible, or olfactory indications of leaks.

j. If there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by paragraph (i) of this condition, the permittee shall follow the procedure specified in either paragraph (k) or (l) of this condition.

k. The permittee shall eliminate the leak.

l. The permittee shall monitor the equipment according to the procedures in paragraph (c) of 40 CFR 63.983.

m. Leaks, as indicated by 40 CFR 63.983(d)(2), shall be repaired as required by 40 CFR 63.983(d)(2-3).

(9VAC 5-80-110, 40 CFR 63.2450(e)(1), 40 CFR 63.982(c), 40 CFR 63.983 and 40 CFR 63.985)

Limitations

109. **MACT Subpart FFFF – Continuous Process Vents** – The permittee shall meet each emission limit in Table 1 to 40 CFR 63 Subpart FFFF that applies to its continuous process vents, and the permittee shall meet each applicable requirement specified in paragraphs (b) through (c) of 40 CFR 63.2455.

a. For each continuous process vent, the permittee shall either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in §63.115(d), except as specified in paragraphs (b)(1) through (3) of 40 CFR 63.2455.

b. If the permittee uses a recovery device to maintain the TRE above a specified threshold, the permittee shall meet the requirements of §63.982(e) and the requirements referenced therein, except as specified in §63.2450 and paragraph (c)(1) of 40 CFR 63.2455.

c. For each Group 2 continuous process vent using a recovery device to maintain the TRE greater than 1.9 but less than 5.0, the permittee shall comply with the requirements in §63.993 and the requirements referenced therein.

d. Except as allowed by Condition 105, each recovery device used to comply with the provisions of 40 CFR 63 Subpart FFFF shall be operated at all times when emissions are vented to them.

(9VAC 5-80-110, 40 CFR 63.993 and 40 CFR 63.2455)

110. **MACT Subpart FFFF – Storage Tanks** – The permittee shall meet each emission limit in Table 4 to 40 CFR 63 Subpart FFFF that applies to its storage tanks, and the permittee shall meet each applicable requirement specified in paragraphs (b) through (e) of 40 CFR 63.2470.

a. The emission limits in this condition for control devices used to control emissions from storage tanks shall not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in condition, shall not exceed 360 hours per year (hr/yr). Note: the 40 CFR 63.2470(d) increase from 240 hrs/yr to 360 hrs/yr was granted in approval determinations dated March 23, 2009 and July 15, 2011.

b. For each Group 1 storage tank, the permittee shall reduce total HAP emissions by 95 percent by weight or to 20 ppmv of TOC or organic HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare).

(9VAC 5-80-110 and 40 CFR 63.2470)

111. **MACT Subpart FFFF – Wastewater Streams and Liquid Streams in Open Systems** – The permittee shall meet each requirement in Table 7 to 40 CFR 63 Subpart FFFF that applies to its wastewater streams and liquid streams in open systems within a miscellaneous organic chemical manufacturing process unit (MCPU), except as specified in paragraphs (b) through (o) of 40 CFR 63.2485. For each process wastewater stream, the permittee shall comply with the requirements in §§63.132 through 63.148 and the requirements referenced therein, except as specified in §63.2485.
(9VAC 5-80-110 and 40 CFR 63.2485)

Leak Detection and Repair (LDAR) Requirements

112. **MACT Subpart FFFF** - The permittee shall meet each requirement in Table 6 to 40 CFR 63 Subpart FFFF that applies to its equipment leaks, except as specified in paragraphs (b) through (d) of 40 CFR 63.2480. For all equipment that is in organic HAP service, the permittee shall comply with the requirements of Subpart UU of this Part 63 and the requirements referenced therein, except as specified in §63.2480(b) and (d).
(9VAC 5-80-110 and 40 CFR 63.2480)

Heat Exchange System Requirements

113. **MACT Subpart FFFF** - The permittee shall meet each requirement in Table 10 to 40 CFR 63 Subpart FFFF that applies to its heat exchange systems, except as specified in paragraphs (b) and (c) of 40 CFR 63.2490. For each heat exchange system, as defined in §63.101, the permittee shall comply with the requirements of §63.104 and the requirements referenced therein, except as specified in §63.2490.
(9VAC 5-80-110 and 40 CFR 63.2490)

Monitoring Requirements

114. **MACT Subpart FFFF** - Except as specified in a alternative monitoring request approved by the Administrator, United States EPA (Administrator), the permittee shall meet each of the applicable monitoring requirements specified in 40 CFR 63.993 and 40 CFR 63.996. The permittee shall comply with the alternative monitoring requirements approved by the Administrator on August 19, 2009 (NOMEX®) and May 7, 2012 (Kevlar®). If the Administrator approves new or amended alternative monitoring requirements during the term of this permit, the permittee shall comply with the new/amended requirements in lieu of the requirements approved on August 19, 2009 or May 7, 2012 (NOMEX® or Kevlar®).

a. All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

b. The permittee shall maintain and operate each continuous parameter monitoring systems (CPMS) as specified in this section, or in a relevant subpart, and in a manner consistent with good air pollution control practices.

c. All CPMS's shall be installed and operational, and the data verified as specified in this 40 CFR 63 Subpart FFFF either prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

d. All CPMS's shall be installed such that representative measurements of parameters from the regulated source are obtained.

e. In accordance with 40 CFR 63 Subpart FFFF, except for system breakdowns, repairs, maintenance periods, instrument adjustments, or checks to maintain precision and accuracy, calibration checks, and zero and span adjustments, all continuous parameter monitoring systems shall be in continuous operation when emissions are being routed to the monitored device.

(9VAC 5-80-110, 40 CFR 63.993 and 40 CFR 63.996)

Notification and Reporting Requirements

115. **MACT Subpart FFFF** - The permittee shall submit all of the notifications in 40 CFR 63.8(e), 63.8(f)(4) and (6), and 63.9(b) and (h) that apply by the dates specified. (9VAC 5-80-110 and 40 CFR 63.2515)

116. **MACT Subpart FFFF** - The permittee shall submit the following reports to demonstrate compliance with this permit. The content of and format of such reports shall be arranged with the Piedmont Regional Office. These reports shall include, but are not limited to a Compliance Report – submitted semi-annually in accordance with 40 CFR 63.2520(b) and including the information specified in 40 CFR 63.2520(e) and 40 CFR 63.999(c). (9VAC 5-80-110 and 40 CFR 63.2520)

Recordkeeping Requirements

117. **MACT Subpart FFFF** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. The results of each calibration check and all maintenance performed on each Continuous Parameter Monitoring System (CPMS) as specified in §63.998(c)(1)(ii)(A).

b. Records of the halogen concentration in each 40 CFR 63 Subpart FFFF vent stream determined according to the procedures specified in Condition 106.

c. Monitoring records as required by the most recent alternative monitoring plan approved by the Administrator, United States EPA.

d. For a CPMS used to comply with 40 CFR 63 Subpart FFFF, a record of the procedure used for calibrating the CPMS.

e. For a CPMS used to comply with 40 CFR 63 Subpart FFFF, records of the information specified in paragraphs (c)(ii)(A) through (H) of 40 CFR 63.998.

f. Records of periods of operation during which the parameter boundaries are exceeded. The parameter boundaries are established pursuant to the EPA Approved alternative monitoring plan.

g. For all Group 2 wastewater streams, the permittee shall keep in a readily accessible location records of the process unit identification and description of the process unit, the stream identification code, the concentration of Table 8 and 9 compound(s) (from 40 CFR 63 Subpart FFFF) in parts per million, by weight (include documentation of the methodology used to determine concentration) and the flow rate in liters per minute.

h. Each applicable record required by subpart A of 40 CFR 63 and in referenced subparts F, G, SS and UU of 40 CFR 63 and in referenced subpart F of 40 CFR 65.

i. Records of each operating scenario as specified in 40 CFR 63.2525(b)(1-8).

j. A record of each time a safety device is opened to avoid unsafe conditions in accordance with 40 CFR 63.2450(p).

k. The closed vent system records required by 40 CFR 63.998(d)(1).

l. A record of the planned routine maintenance performed on any control system during which the control system does not meet the applicable specifications of 40 CFR 63.983(a), 63.985(a), or 63.987(a), as applicable, due to the planned routine maintenance. Such a record shall include the information specified in 40 CFR 63.998(d)(2)(ii)(A-C). This information shall be submitted in the Periodic Reports as specified in 40 CFR 63.999(c)(4).

m. Regulated source and control equipment start-up, shutdown and malfunction records as required by 40 CFR 63.998(d)(3).

n. Closed vent system equipment leak records as required by 40 CFR 63.998(d)(4).

o. The permittee shall record the occurrences and the cause of periods when the monitored parameters are outside of the parameter ranges documented in the Notification of Compliance Status report. This information shall also be reported in the Periodic Report.

p. Records of any applications for and approvals of extensions for planned routine maintenance in accordance with 40 CFR 63.2470(d).

q. Records of any applicability determinations for heat exchanger systems potentially subject to Condition 113.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC 5-80-110, 40 CFR 63.2450(k)(1), 40 CFR 63.147(b)(8), 40 CFR 63.2525, 40 CFR 63 Subparts A and FFFF)

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

General

118. Fuel Burning Equipment Requirements (emission unit ID #MIE 06-10, MIE-13, and MIE-14) – Limitations – Requirements by Reference - Except where this permit is more restrictive than the applicable requirement, the permittee shall operate in compliance with all applicable requirements of 40 CFR 63 (MACT), Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. The permittee shall be in compliance with the provisions of 40 CFR 63, Subpart A, except as noted in Table 8 to Subpart ZZZZ of Part 63.

Citation	Requirement
40 CFR 63.6602	Emission limitations and other requirements
40 CFR 63.6605 and 63.6640	Continuous compliance requirements
40 CFR 63.6625(e)-(h) and Table 2c to Subpart ZZZZ	Monitoring, installation, operation and maintenance requirements
40 CFR 63.6650	Reporting requirements
40 CFR 63.6655(a),(b), (d)-(f)	Recordkeeping requirements
Table 8 to Subpart ZZZZ	Applicability of General Provisions to Subpart ZZZZ

(9VAC 5-80-110 and 40 CFR 63 Subparts A and ZZZZ)

National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters

General

119. **Fuel Burning Equipment Requirements (emission unit ID #ZYE08 through ZYE11) – Limitations – Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the permittee shall operate in compliance with all applicable requirements of 40 CFR 63 (MACT), Subpart DDDDD National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The permittee shall be in compliance with the provisions of 40 CFR 63, Subpart A, except as noted in Table 10 to Subpart DDDDD of Part 63.

Citation	Requirement
40 CFR 63.7500(a)(3)(e) and Table 3 to Subpart DDDDD of Part 63	Work Practice Standards
40 CFR 63.7545	Notification requirements
40 CFR 63.7550(b)	Reporting requirements
40 CFR 63.7555(a)	Recordkeeping requirements
Table 10 to Subpart DDDDD of Part 63	Applicability of General Provisions to Subpart DDDDD

(9VAC 5-80-110 and 40 CFR 63 Subparts A and DDDDD)

Insignificant Emission Units

120. The following emission units at the facility are identified in the application as insignificant emission units under 9VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC 5-80-720 B)	Rated Capacity (9VAC 5-80-720 C)
MIT01-02	Two Gasoline/Diesel Storage Tanks	9VAC 5-80-720 B	VOC	N/A
MIT03-04	Two No. 2 Fuel Oil Storage Tanks	9VAC 5-80-720 B	VOC	N/A
MIE16	Diesel Storage Tank	9VAC 5-80-720.B.2	VOC	1,000 gallons
ZYE15	Adipic Acid Unloading System	9VAC 5-80-720 B	PM/PM10	N/A
MIE15	Aqueous Based Metal Cleaning Units	9VAC 5-80-720 A	N/A	N/A
SEE42	One Caustic Railcar Unloading Station	9VAC 5-80-720 B	None	N/A
TYE25-32	Polyethylene Pellet Storage Silos (8)	9VAC 5-80-720 B	PM/PM10	N/A
ZYTAA	Zytel Acetic Acid Tank	9VAC 5-80-720 B	VOC	N/A
MIE11-12	Two 1.9 MMBtu/hr diesel-fired space heaters	9VAC 5-80-720 A	N/A	N/A

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC 5-80-110.
(9VAC 5-80-110)

Permit Shield & Inapplicable Requirements

121. Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR Part 64	Compliance Assurance Monitoring	Processes do not meet all CAM criteria or are exempt.
40 CFR 60, Subpart Kb	Volatile Organic Liquid Storage Vessel Standards	Maximum true vapor pressure of fuel oil <15kPa. Gasoline storage capacity < 40 cubic meters.
40 CFR 60, Subpart VVa	Standards of Performance for Equipment Leaks of VOC in the SOCMI Industry	The Spruance Plant is not a SOCMI facility.
40 CFR Part 60, Subpart OOO	Standards of Performance for Nonmetallic Minerals Processing Plants	The gypsum plant was constructed before August 31, 1983. The barge loading operating modified in 2014 was exempt from Subpart OOO based on the capacity of the largest conveyor (< 25 tons/hr).
40 CFR Part 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	CI RICE emergency generators constructed before April 1, 2006 (not modified).
40 CFR Part 60, Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	SI RICE emergency generators constructed before April 1, 2006 (not modified).

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9VAC 5-80-140)

General Conditions

122. **General Conditions - Federal Enforceability** - All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9VAC 5-80-110)

123. **General Conditions - Permit Expiration** - This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
(9VAC 5-80-80, 9VAC 5-80-110 and 9VAC 5-80-170)

124. **General Conditions - Permit Expiration** - The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration
(9VAC 5-80-80, 9VAC 5-80-110 and 9VAC 5-80-170)

125. **General Conditions - Permit Expiration** - If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9VAC5 Chapter 80, until the Board takes final action on the application under 9VAC5-80-150.
(9VAC5-80-80, 9VAC5-80-110 and 9VAC5-80-170)

126. **General Conditions - Permit Expiration** - No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9VAC5 Chapter 80.
(9VAC5-80-80, 9VAC5-80-110 and 9VAC5-80-170)

127. **General Conditions - Permit Expiration** - If an applicant submits a timely and complete application under section 9VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any application shield granted pursuant to 9VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9VAC 5-80-80, 9VAC 5-80-110 and 9VAC 5-80-170)

128. **General Conditions - Permit Expiration** - The protection under subsections F 1 and F 5 (ii) of section 9VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
(9VAC 5-80-80, 9VAC 5-80-110 and 9VAC 5-80-170)

129. **General Conditions - Recordkeeping and Reporting** - All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

a. The date, place as defined in the permit, and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of such analyses; and

f. The operating conditions existing at the time of sampling or measurement.

(9VAC 5-80-110)

130. **General Conditions - Recordkeeping and Reporting** - Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (9VAC 5-80-110)

131. **General Conditions - Recordkeeping and Reporting** - The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9VAC 5-80-80 G, and shall include:

a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and

b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

i. Exceedance of emissions limitations or operational restrictions;

ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9VAC 5-80-110)

132. **General Conditions - Annual Compliance Certification** - Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9VAC 5-80-80 G, and shall include:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31;

b. The identification of each term or condition of the permit that is the basis of the certification;

c. The compliance status;

d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;

e. Consistent with subsection 9VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;

f. Such other facts as the permit may require to determine the compliance status of the source; and

g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9VAC 5-80-110)

133. **General Conditions - Permit Deviation Reporting** - The permittee shall notify the Piedmont Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written

statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition 131 of this permit.
(9VAC 5-80-110 F.2)

134. **General Conditions - Failure/Malfunction Reporting** - In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Piedmont Regional Office of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9VAC 5-40-50 C and 9VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC 5-40-40 and 9VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Piedmont Regional Office.
(9VAC 5-80-110 and 9VAC 5-20-180)

135. **General Conditions – Severability** - The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9VAC 5-80-110)

136. **General Conditions - Duty to Comply** - The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9VAC 5-80-110)

137. **General Conditions - Need to Halt or Reduce Activity not a Defense** - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9VAC 5-80-110)

138. **General Conditions - Permit Modification** - A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC 5-80-50, 9VAC 5-80-1100, 9VAC 5-80-1605, or 9VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9VAC 5-80-110, 9VAC 5-80-190 and 9VAC 5-80-260)

139. **General Conditions - Property Rights** - The permit does not convey any property rights of any sort, or any exclusive privilege.
(9VAC 5-80-110)

140. **General Conditions - Duty to Submit Information** - The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9VAC 5-80-110)

141. **General Conditions - Duty to Submit Information** - Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9VAC 5-80-80 G.
(9VAC 5-80-110)

142. **General Conditions - Duty to Pay Permit Fees** - The owner of any source for which a permit was issued under 9VAC5-80-50 through 9VAC5-80-300 shall pay annual emissions fees, as applicable, consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 and annual maintenance fees, as applicable, consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350.
(9VAC5-80-110, 9VAC5-80-310 et seq., and 9VAC5-80-2310 et seq.)

143. **General Conditions - Fugitive Dust Emission Standards** - During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9VAC 5-40-90, 9VAC 5-50-90 and 9VAC 5-80-110)

144. **General Conditions - Startup, Shutdown, and Malfunction** - At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9VAC 5-40-20 E, 9VAC 5-50-20 E and 9VAC 5-80-110)

145. **General Conditions - Alternative Operating Scenarios** - Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC 5 Chapter 80, Article 1.
(9VAC 5-80-110)

146. **General Conditions - Inspection and Entry Requirements** - The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9VAC 5-80-110)

147. **General Conditions - Reopening For Cause** - The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no

later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC 5-80-80 F. The conditions for reopening a permit are as follows:

a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC 5-80-110 D.

(9VAC 5-80-110)

148. **General Conditions - Permit Availability** - Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request. (9VAC 56-80-110 and 9VAC 5-80-150)

149. **General Conditions - Transfer of Permits** - No person shall transfer a permit from one location to another, unless authorized under 9VAC 5-80-130, or from one piece of equipment to another.
(9VAC 5-80-110 and 9VAC 5-80-160)

150. **General Conditions - Transfer of Permits** - In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC 5-80-200. (9VAC 5-80-110 and 9VAC 5-80-160)

151. **General Conditions - Transfer of Permits** - In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC 5-80-200. (9VAC 5-80-110 and 9VAC 5-80-160)

152. **General Conditions - Permit Revocation or Termination for Cause** - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC 5 Chapter 80 Article

1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9VAC 5-80-110, 9VAC 5-80-190 C and 9VAC 5-80-260)

153. **General Conditions - Duty to Supplement or Correct Application** - Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9VAC 5-80-110 and 9VAC 5-80-80 E)

154. **General Conditions - Stratospheric Ozone Protection** - If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(9VAC 5-80-110 and 40 CFR Part 82)

155. **General Conditions - Asbestos Requirements** - The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9VAC 5-60-70 and 9VAC 5-80-110)

156. **General Conditions - Accidental Release Prevention** - If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(9VAC 5-80-110 and 40 CFR Part 68)

157. **General Conditions - Changes to Permits for Emissions Trading** - No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9VAC 5-80-110)

158. **General Conditions - Emissions Trading** - Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

a. All terms and conditions required under 9VAC 5-80-110, except subsection N, shall be included to determine compliance.

b. The permit shield described in 9VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

c. The owner shall meet all applicable requirements including the requirements of 9VAC 5-80-50 through 9VAC 5-80-300.

(9VAC 5-80-110)